Perceived Organizational Support and \textit{Organizational} Performance:

Contributions of High-Performance Work Systems,

Resource Scarcity, and CEO Leadership

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Abstract

Despite the many studies that have established a positive relationship between perceived organizational support (POS) and employee performance, research is lacking concerning the relationship of organizational-level POS (OPOS) with organizational performance as influenced by organization-wide and industry-level moderating factors. With a sample of 109 small-to-medium sized South Korean firms, we found that employees’ OPOS mediated the relationships of HPWS and CEO’s relational leadership with organizational performance, as moderated by HPWS and industry resource scarcity. Based on our findings, when organizations intensively utilized HPWS, a one unit increase in OPOS was associated with an 11.0 percent increase in organizational performance. Further, under high resource-scarce industry a one unit increase in OPOS was related to a 12.5 percent increase in organizational performance.

Keywords: perceived organizational support; financial performance; relational leadership; human resource practices
Perceived Organizational Support and Organizational Performance: Contributions of High-Performance Work Systems, Resource Scarcity, and CEO Leadership

A substantial amount of evidence indicates that employees who perceive that their work organization highly values their contributions and cares about their well-being (perceived organizational support, or POS) have more positive attitudes toward the organization and experience increased psychological well-being (Baran, Shanock, & Miller, 2012; Eisenberger & Stinglhamber, 2011; Kurtessis et al., 2017; Rhoades & Eisenberger, 2002). For example, POS has been found to be associated with increased resilience to work pressures and stress (e.g., Shaw et al., 2013; Wang et al., 2013). POS has also been found to fulfill employees’ socio-emotional needs, including approval, esteem, emotional support and affiliation (Armeli, Eisenberger, Fasolo, & Lynch, 1998), resulting in greater identification with, and emotional attachment to, the organization (Marique, Stinglhamber, Desmette, Caesens, & De Zanet, 2013).

Further, consistent with social exchange theory (Coyle-Shapiro & Shore, 2007; Cropanzano & Mitchel, 2005; Gouldner, 1960), meta-analytic reviews of approximately 200 studies found positive associations between POS and job performance (Kurtessis et al., 2017; Rhoades & Eisenberger, 2002). Many of the authors of these studies (e.g., Cullen, Edwards, Camron, Casper, & Gue, 2014; Gavino, Wayne, & Erdogan, 2012; Yu & Frenzel, 2013) as well as literature review authors (e.g., Eisenberger & Stinglhamber, 2011) conjectured that POS leads not only to increased employee performance but also increased organizational performance. That is, to the extent that employees throughout an organization share high POS, the organization’s bottom line should benefit. Yet, to our knowledge, no studies have yet addressed the relationship between organization-level perceptions of support and organizational
performance. Although the influence of contextual variables, such as POS, on individual employee outcomes is of substantial conceptual and practical interest, the possible relationship between perceived organizational support at the organizational level (OPOS) and organizational performance has additional, far reaching theoretical and applied implications. By OPOS we mean the average POS of all employees working at an organization. Whereas POS relationships concern differences among individual employees, OPOS relationships concern differences across organizations in perceived support.

Organizational support theory (Baran, Shanock, & Miller, 2012; Eisenberger & Stinglhamber, 2011; Kurtessis et al., 2017; Rhoades & Eisenberger, 2002) holds that the major antecedents of POS are human resource practices, leadership and fairness. Many of the studies reporting positive relationships between these factors and POS were carried with the employees of individual organizations. Therefore, employees within organizations ordinarily experience measurable differences in these factors. These differences in experience notwithstanding, organization-wide HR conditions, leadership styles by higher management, and polices regarding fairness may be experienced as similar by many employees within organizations, resulting in (a) moderate levels of commonalities of POS among employees within organizations and (b) systematic differences in organization-level support across organizations. The common degrees of favorable treatment across employees in an organization may result in similar perceptions of the extent to which employees perceive the organization values them and cares about their well-being, aggregated across employees in the organization, or OPOS.

Because of the substantial levels of agreement across employees regarding POS within the organization, the direct consensus level of composition (Chan, 1998, Kozlowski & Klein, 2000) is appropriate for utilizing the average or total level of POS as representative of OPOS.
Although organizational support theory was developed with the individual employee in mind the theory can be extended to groups of employees including employees comprising the entire organization. Organizational support theory holds that employees with high POS are more motivated to help the organization reach its objectives based on the norm of reciprocity and greater identification with the organization, leading to increased affective organizational commitment (e.g., Allen & Shanock, 2013; Caesens, Marique, & Stinglhamber, 2014). When OPOS is high, the employees of the organization should be motivated to carry out in-role job performance more effectively and to engage in such extra-role activities as acquiring greater knowledge to perform one’s job better, looking out for problems that may damage the organization, and helping other employees to carry out their jobs better (Eisenberger et al., 2010).

When, as a result of high OPOS, the employees work harder as a group toward organizational goals, organizational performance should tend to increase. We operationalized organizational performance as workforce productivity involving financial output per labor input (i.e., profit per employee) (Samuelson & Nordhaus, 1989). Profit per employee is considered a key indicator of organizational performance (Datta, Guthrie, & Wright, 2005) and is one of the most widely used measures in the strategic HRM literature (e.g., Shaw, Park, & Kim, 2013). Although other measures of organizational performance are available, this one is of particular interest because it reflects the contribution of employees to the bottom line. To provide stronger evidence of the direction of the relationship between OPOS and organizational performance, we controlled for past organizational performance. This allows us to examine how OPOS changes organizational performance.

We examined two possible antecedents of OPOS involving human performance work
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systems (HPWS) and relational leadership. HPWS are a set of human resources practices designed to improve employees’ ability, motivation, and opportunities for coordinated performance of interrelated activities (Jiang et al., 2012; Takeuchi, Lepak, Wang, & Takeuchi, 2007). By providing employees with the necessary knowledge, skills and abilities (KSAs) to perform their job and providing opportunities to utilize their KSAs, and to coordinate their contributions with those of other employees, organizations convey the positive valuation of their employees’ talents and contributions to the organization, thus enhancing POS (Liao, Toya, Lepak, & Hong, 2009).

Additionally, many studies show that effective leadership of groups and teams enhances POS of individual employees (Eisenberger & Stinglhamber, 2011). Yet to be investigated is the contribution of top-level management to OPOS. CEOs may contribute to OPOS through relational leadership, involving the extent to which leaders foster collaboration, trust, and open communication among employees (Carmeli, Ben-Hador, Waldman, & Rupp, 2009). CEOs who display relational leadership may provide a model of favorable treatment of employees for the entire organization to emulate, by greater communication with lower level employees (Eisenberger & Neves, 2012) and by promoting policies that promoted favorable treatment of, and cooperation, between employees.

Contextual factors may moderate the relationships between OPOS and organizational performance. Increased efforts on behalf of the organization will influence performance only to the extent that employees possess needed skills and knowledge and have the opportunity to utilize them (Jiang, Lepak, Hu, & Baer, 2012). At the organizational level, systematic human resources practices that support the acquisition of needed skills and coordination of interrelated tasks among employees (i.e., HPWS) may contribute substantially to transforming increased
efforts, based on OPOS, into greater organizational performance. Thus, HPWS may have two relationships with OPOS: (a) HPWS may act as an antecedent, signaling the organization’s positive valuation of employees, and (b) HPWS may act as a moderator of the OPOS-organizational performance relationship by, for example, providing the organization’s employees with the KSAs that enable high organizational motivation by employees to produce high organizational performance.

The relationship between OPOS and organizational performance may also be strengthened by the resource scarcity of the industry in which the organization resides. Resource scarcity (sometimes called the absence of resource munificence) refers to the lack of industry resources needed by the organization to support its core mission and provide for its sustained growth (Aldrich, 1979; Misangyi, Elms, Greckhamer, & Lepine, 2006; Starbuck, 1976). Employees may directly experience resource scarcity, for example, when they are told annual pay increments must be forgone. Employees may also hear secondarily about resource scarcity when the organization announces financial losses. When resource scarcity is high, OPOS may engender greater organizational performance because employees then view the organization as making greater sacrifices to provide various resources signaled by OPOS. Secondly, employees’ affective commitment to the organization, engendered by OPOS, may induce greater efforts on behalf of the organization when, under conditions of high resource scarcity, employees perceive the organization’s welfare to be challenged.

In summary, we provide the first study of the relationship between OPOS and organizational financial performance as influenced by the possible antecedents of HPWS and CEO relational leadership and moderated by contexts of HPWS and industry resource scarcity. The proposed unit-level model of OPOS is presented in Figure 1.
Literature Review and Hypotheses Development

OPOS as Organizational-Level POS

According to organizational support theory, employees form POS in order to determine the organization’s readiness to reward their increased efforts toward the achievement of organizational goals/objectives and to meet their socio-emotional needs (Eisenberger et al., 1986). These attributions concerning the organization’s favorable orientation would be enhanced by employees’ personification of the organization (Eisenberger et al., 1986). Levinson (1965) noted that employees think of the organization as having humanlike characteristics on the basis of such factors as the organizational policies and rules, its power to influence employees through its agents and its responsibilities for the agents’ actions.

The factors that encourage the personification of the organization and thus make employees believe that they are in a social exchange relationship with the organization fall into two major categories: organizational structure (e.g., fairness, HR practices) and leaders’ behaviors (e.g., LMX, CEO’s relational leadership). When structural practices are carried out on an organization-wide basis (e.g., HPWS) or when strong leadership comes from a high level in the organizational hierarchy (e.g., CEO’s relationship leadership), the POS of large numbers of employees is likely to be influenced, leading to greater OPOS.

OPOS refers to the organizational counterpart to individual-level POS, involving the aggregate POS of all employees working at an organization. The construct of OPOS has added value because it takes an important step beyond the many studies demonstrating a positive relationship between POS and individual performance (Kurtessis et al., 2017). Because the POS of individual employees usually has limited influence on overall organizational performance, OPOS provides a more realistic assessment of how employees together may impact...
organizational performance. OPOS should mediate the relationships of organization-level antecedents of OPOS (e.g., HPWS and CEO relational leadership) and organizational performance as moderated by organization level influences (e.g., HPWS) and industry-level factors (resource scarcity).

**HPWS as an Antecedent of OPOS**

Essential to employees’ POS is their experience in the organization which “is [partly] shaped by personnel actions such as recruiting, appraising performance, training, and benefits administration” (Rousseau & Greller, 1994, p. 385). HPWS refer to a collection of separate but interrelated HR practices that are designed to improve employee and organization attainment (Huselid, 1995; Takeuchi et al., 2007). HPWS typically include selective staffing, training, pay for performance, job autonomy, employee participation, and performance evaluation (e.g., Combs, Liu, Hall, & Ketchen, 2006; Jiang et al., 2012).

HPWS have been widely studied under the ability-motivation-opportunity (AMO) framework of HRM (Jiang et al., 2012). Strategic HRM scholars have maintained that employees’ ability, motivation, and opportunities are key elements in employee and organizational performance (e.g., Chang, Gong, & Peng, 2012). Based on the AMO theoretical framework, HPWS have been argued to increase organizational performance by improving employees’ abilities (i.e., KSAs) and motivation, and by providing opportunities to use employees’ KSAs (Jiang et al., 2012). In their meta-analysis, Combs et al. (2006) found that the relationship between HPWS and firm performance was about twice as large as individual HR practices. Accordingly, in the strategic HRM literature, when studying HR practices in relation to firm performance, scholars consider HPWS as an entire HR system rather than as individual HR practices. Specifically, as Takeuchi et al. (2007, p. 1070) put it: “any empirical investigation
of HR activities and their organizational outcomes should operate at the system level.”

Because they are designed to enhance employee KSAs and motivation and provide them with opportunities to engage in skilled performance (Takeuchi et al., 2007), HPWS are viewed by employees as organizations’ investment in professional development, thus contributing to a favorable social exchange between the organization and employees (Liao et al., 2009; Takeuchi et al., 2007). Such positive treatments, as organizational support theory suggests (Rhoades & Eisenberger, 2002), should be important antecedents of OPOS.

Accordingly, some scholars have argued that HPWS signal employees that the organizations care about them and value their contributions (e.g., Liao et al., 2009). Specifically, performance evaluation and training programs signal that the organizations care about employees’ growth and development (Gong, Chang, & Cheung, 2010). Pay for performance conveys the organizations’ readiness to reward employees for their efforts as well as fair treatment of the employees, thus recognizing the value of the organization’s contributions (Allen, Shore, & Griffeth, 2003, Shore & Shore, 1995). Selective staffing signals that organizations value a high quality workforce and helps enhance the prestige and status of employee membership (Gong et al., 2010). Employee participation in decision making indicates that the organization thinks of employees as talented individuals whose knowledge can make an important contribution (Gong et al., 2010).

The systematic favorable HR treatment provided by HPWS should heighten OPOS. Consistent with this view, Liao et al. (2009) found that HPWS was positively related to POS at the individual employee level. Despite their findings, Liao et al. (2009) acknowledged that limited attention has been paid to the HPWS-POS relationship in the strategic HRM literature. Extending this line of research, we hypothesize that HPWS are positively related to OPOS.
Hypothesis 1: HPWS are positively associated with OPOS.

CEO Relational Leadership as an Antecedent of OPOS

Relational and transformational leadership have been found to be strongly related to POS when practiced by managers and supervisors (Kurtessis et al., 2017). Although both types of leadership by CEOs may have important influences on OPOS and therefore organizational performance, we focused in this study on relational leadership. Consistent with past studies (e.g., Carmeli et al., 2011), we define relational leadership as the extent to which leaders encourage open communication, collaboration, and trust among employees. Relational leaders engage in these behaviors to establish an environment where employees can have high quality relationships with each other (Carmeli et al., 2009). Essentially, they “work in and through relationships and … foster relational health in their organizations” (Fletcher, 2007, p. 348). Because CEOs spend most of their time in interpersonal roles communicating with others (Bartlett & Ghoshal, 1995; Hales, 1986), their relational leadership may have a strong impact throughout the organization through modeling cooperation and collaboration and by establishing policies and procedures that promote such behaviors.

CEO relational leadership may encourage OPOS in three ways. First, CEOs serve as important symbols of the organization as a whole (Levinson, 1965; Eisenberger et al., 1986). The perception of positive valuation by upper level management has been found to be closely related to POS (Kurtessis et al., 2017). Relational CEOs typically hold strong assumptions about the importance of favorable interpersonal treatment and cooperation. Relational CEOs cultivate employees’ beliefs “that others are reliable, thus engendering willingness to be vulnerable (Mishra, 1996) and a sense that they can rely on each other (Doney et al., 1998)” (Carmeli et al., 2011, p. 36). Knowledge that the CEO has as a priority the promotion of cooperation among
employees (Fletcher, 2007) should lead to an organization-wide enhancement of POS (i.e., OPOS). Second, relational leadership nurtures open communication wherein employees feel psychologically safe to freely voice their ideas, suggestions, and perspectives to management (Carmeli et al., 2011; Edmundson, 1999). Fostering open communication signals that the organization values employees’ opinions. This enhanced communication between the CEO and lower level employees should be positively related to OPOS (Neves & Eisenberger, 2012). Third, the CEO may promote policies that foster favorable treatment of, and cooperation among employees, leading to greater OPOS. Therefore, when the CEO is a relational leader, employees in the organization should have higher OPOS than when the CEO is a non-relational leader. We hypothesize:

_Hypothesis 2: CEO relational leadership is positively associated with OPOS._

**Main Effect of OPOS on Organizational Performance**

Organizational support theory proposes two mechanisms by which POS influences employees’ attitudes and behaviors. First, many scholars maintain that social exchange is a key element in employees’ relationship with their work organization (e.g., Coyle-Shapiro & Shore, 2007; Eisenberger & Stinglhamber, 2011; Shore, Tetrick, Lynch & Barksdale, 2006; Teakleab, Takeuchi, & Taylor, 2005; Wayne et al., 2009). Based on the reciprocity norm (Blau, 1964; Coyle-Shapiro & Shore, 2007; Cropanzano & Mitchel, 2005; Gouldner, 1960), POS evokes a felt obligation or indebtedness to fulfil the organizational goals and objectives. Because POS conveys positive regard and caring, employees tend to reciprocate with increased affective organizational commitment (Eisenberger et al., 2001; Foa & Foa, 1980). Second, the caring and positive valuation conveyed by POS fulfill employees’ socio-emotional needs, including needs for approval, esteem, affiliation, and emotional support. This encourages employees to identify
themselves with the organization (e.g., Edwards & Peccei, 2010).

Through these two mechanisms, OPOS should motivate employees to help the organization reach its goals and objectives (Eisenberger & Stinglhamber, 2011). Employees in organizations with high OPOS should feel a strong obligation to repay their organization with high effort, and affective commitment should also increase employees’ readiness to work hard on behalf of the organization (Rhoades & Eisenberger, 2002). Employees in high OPOS organization should help foster organizational performance by more diligent standard job performance and by increased extra-role performance, including suggestions that might benefit the organizations, collaboration with others and helping them successfully complete their work, and looking for ways to help organizations flourish (Kurtessis et al., 2017; Rhoades & Eisenberger, 2002). In the aggregate, therefore, when organizations have high OPOS, employees’ greater efforts, based on OPOS, should improve organizational performance.

By increasing employees’ affective commitment, OPOS should also lessen counterproductive work behaviors that interfere with productivity (Kurtessis et al., 2017; Rhoades & Eisenberger, 2002). For example, employee theft has been estimated to cost U.S. organizations several billions of dollars a year and be a major source of business failures (Bowling & Gruys, 2000, p. 54). Further, Waldman, Kelly, Arora, and Smith (2010) estimated that employee turnover costs about 3.4 - 5.8 percent of the annual operating budget of organizations. Evidence suggests that OPOS would also reduce employee emotional exhaustion (Kurtessis et al., 2017), which has been estimated to increase two percent of personnel costs (Taris & Schreurs (2009).

**Hypothesis 3:** OPOS is positively related to organizational performance.

**HPWS as a Moderator of the OPOS-Organization Performance Relationship**
The extent to which OPOS leads to organization performance may depend on the organizational context. Even if OPOS enhances employees’ work motivation, employees may not have the necessary KSAs to translate the increased motivation into more effective job performance. By enhancing employees’ capacities and providing them with opportunities to make use of those capacities, HPWS may help organizations with high OPOS to transform high effort into accomplishment and, therefore, organizational performance.

We argue that HPWS should strengthen the relationship between OPOS and organizational performance by improving KSAs. For example, training programs can enhance employees’ ability to perform their tasks by offering employees necessary knowledge and skills (Huselid, 1995; Zacharatos, Barling, & Iverson, 2005). Performance feedback allows employees to identify their strengths and weaknesses such that they can improve their KSAs (Kim, Atwater, Patel, & Smither, 2016). HPWS also strengthen the OPOS-organizational performance relationship by providing employees opportunities to utilize their KSAs (Combs et al., 2006; Jiang et al., 2012). For instance, when employees are allowed to participate in organizational processes or when they have autonomy in their jobs, they can make use of their KSAs to contribute to the organizational success. Team decision making and suggestion systems also allow employees to participate in organizational action. Besides ability and opportunity, HPWS further enhance employees’ motivation to work hard by providing monetary incentives to employees (Jiang et al., 2012). Pay for performance and extensive benefits are examples. Thus, by providing the organization’s employees with greater skills and abilities and the opportunity to put those skills and abilities into practice and improving their motivation, HPWS may enhance the influence of OPOS on organizational performance. Consistent with the present view, Whitener (2001) found that HR practices such as performance appraisal and reward HR practices
strengthened the relationship between POS and employees’ affective commitment to the organization. Thus, we hypothesize:

**Hypothesis 4:** HPWS moderate the OPOS-organizational performance relationship such that the relationship between OPOS and organizational performance is greater at high levels of HPWS.

**Industry Resource Scarcity as a Moderator of the OPOS-Performance Relationship**

The extent to which OPOS leads to organizational performance may depend upon the organization’s industry context. One industry characteristic that is salient to management and lower-level employees alike and that may moderate the influence of OPOS on organizational performance involves the economic climate of the industry in which the organization resides. Industry resource scarcity refers to the shortage of resources in the industry environment that can be used to promote the organization’s effectiveness and growth. New industries that promise growth are often the target of enthusiastic investors who provide ample resources whereas mature industries frequently fall prey to substitute products and services and declining investment (Dess & Beard, 1984). Depending on the nature of the organization, these resources may involve inexpensive raw materials, advanced technologies that support product innovation, a supply of workers with critical skills, etc. (Hodge, Anthony, & Gales, 2003). Ample industry resources facilitate growth and provide a cushion against financial reverses resulting from mistaken judgments or concerning corporate strategy or failures of new products or services (Nielsen & Nielsen, 2013). Moreover, in a plentiful environment there is less of an incentive for competitors to attempt to directly compete with another organization’s products and services (Bierly & Daly, 2007). In contrast, when resource scarcity is high, organizations are more likely to engage in intense competition for survival (Castrogiovanni, 1991; Stoel & Muhanna, 2009).
In an environment with low resource scarcity, organizations are better able to supply their employees with the resources they need to function effectively. These may include upgrades in equipment and technology and aid in their operation and repair, updated training in one’s specialization, funds and free time to transform creative ideas into practical innovations, adequate staffing of coworkers to share the workload, and adequate staffing of managerial positions to provide direction and feedback. When resource scarcity is high, organizations are less able to provide employees with such resources (March & Simon 1993). Moreover, supervisors may be stretched thin by demands for increased performance with fewer resources and thus have difficulty in finding the time and energy to provide socio-emotional support of subordinates.

The extent to which the norm of reciprocity, based on OPOS, motivates employees to enhance their performance on behalf of the organization may depend on the industry resource scarcity. The high OPOS received from the organization when its ability to provide favorable resources is low may generate greater obligation from employees, based on the reciprocity norm, to work hard on behalf of the organization. According to social exchange theory, indebtedness experienced by the recipient of favorable treatment is positively related to the degree of sacrifice made by the donor in providing the favorable treatment. Thus, a given amount of aid creates a stronger indebtedness when received from a donor with few resources (Eisenberger et al., 1986; Gouldner, 1960). For example, holding constant the amount of aid provided by the donor, the amount of reciprocation was greater in an experimental game to a donor who possessed fewer resources (Eisenberger, Cotterell, & Marvel, 1987). This logic can be also applied to the employees-employers relationship because it is viewed as a social exchange relationship (e.g., Eisenberger et al., 1986). That is, because of the greater sacrifice by the organization in
providing support to employees in an industry with high resource scarcity, high-OPOS employees in the organization may feel obligated to respond with greater efforts on the organization’s behalf.

Additionally, when industry resources are scarce, employees in the organization may view their contributions as more critical to the organization’s success and growth than when industry resources are abundant. Under these circumstances employees may view their contributions as more essential to the organization’s fulfillment of its objectives. Because OPOS yields an increased affective commitment to the organization (e.g., Eisenberger, Fasolo, & Davis-LaMastro, 1990; Shore & Tetrick, 1991; Shore & Wayne, 1993) including a concern with the organization’s well-being, this perceived important contribution to the organization’s welfare may motivate employees to expend added efforts on the organization’s behalf. Therefore, we hypothesize:

_Hypothesis 5: Industry resource scarcity moderates the OPOS-organizational performance relationship such that the relationship between OPOS and organizational performance is stronger at higher industry resource scarcity._

**Moderated Mediation Effects of HPWS on Organizational Performance**

The arguments for the positive relationship between HPWS and OPOS (Hypothesis 1) and the proposed moderating influences of HPWS and industry resource scarcity suggest a moderated mediation effect (see Figure 1). As previously discussed, HPWS should lead to OPOS by communicating to employees their positive valuation by the organization. OPOS, in turn, should lead to organizational performance by motivating employees to perform better. This indirect effect of HPWS through OPOS on organizational performance should be moderated, however, by two factors related to the
last leg of the relationship (see Figure 1). HPWS should increase the relationship between OPOS and performance by enhancing employees’ skills and the opportunity to carry them out. Industry resource scarcity should also increase the relationship between OPOS and performance by increasing employees’ perception that the organization is making sacrifices to help them and is in need of their help. This is a case of moderated mediation in which HPWS plays two roles: (a) as an antecedent to OPOS and (b) as a moderator of the relationship between OPOS and organizational performance. Such dual roles for variable are not uncommon (e.g., Harold & Holtz, 2015; Hart, Adams, & Tortoriello, 2017) and are readily amenable to statistical analysis.

Hypothesis 6: The conditional indirect effect of HPWS on organizational performance via OPOS is high (a) at greater HPWS and (b) at higher industry resource scarcity.

Moderated Mediation Effects of CEO Leadership on Organizational Performance

The arguments for the positive relationship of CEO relational leadership with OPOS (Hypothesis 2), and the proposed moderating influences of HPWS and industry resource scarcity suggest a moderated mediation effect (see Figure 1). Specifically, when CEOs promote organizational support of employees and cooperation and collaboration (i.e., relational leadership), employees’ OPOS should increase, which consequently improves organizational performance. However, this indirect effect should be stronger when the organization utilizes HPWS than when it does not because HPWS are hypothesized to enhance the capabilities and opportunities for increased performance among employees with high OPOS. Also, the indirect effect of CEO relational leadership on organizational performance via OPOS should be stronger when the organization environment is sparse, which would increase employees’ belief the
organization’s provision of valued resources to them comes at an increased sacrifice to the organization. In total, this is a case of second stage mediated moderation where the moderation (HPWS and industry resource scarcity) occurs between the mediator (OPOS) and the terminal outcome (organizational performance) (Edwards & Lambert, 2007). Thus, we hypothesize:

*Hypothesis 7: The conditional indirect effect of CEO relational leadership on organizational performance via OPOS is increased (a) at greater HPWS and (b) at higher industry resource scarcity.*

**Method**

**Sample**

A commercial bank in South Korea provided the authors with an introduction by mail to the CEOs of 277 small to medium sized firms whose participation was requested. The organizations were in various industries such as manufacturing, construction, distribution, finance and insurance, and information technology. Our cover letter explained the purpose and importance of the study to the CEOs and the potential benefits of participation. A total of 220 firms (79 percent) agreed to participate. The firms averaged 19.1 employees. We then scheduled a follow-up onsite visit to each participating CEO during which we provided assurance of confidentiality of survey responses. We obtained data from three different sources within each organization: the CEO, HR manager, and three randomly selected employees. First, we administered a paper survey to each CEO which included the CEO relational leadership scale. Second, to assess the extent of each firm’s HPWS, we administered a survey to the senior HR manager. We also included an assessment of CEO leadership in the HR manager survey. Considering the characteristics of our sampling organizations, small-to-medium sized firms, some firms did not have an official HR manager. In that case, a manager who mainly dealt with
HR issues was asked to answer the manager survey. Lastly, we randomly selected three employees from each firm for the assessment of POS. We distributed a total of 220 surveys to CEOs, 220 surveys to HR managers, and 660 surveys to employees. To increase the participation rate, we emphasized the importance of the research to the potential survey participants, and they (CEOs, managers, and employees) were allowed to fill out a survey during their work hours.

We collected surveys from the participants onsite. We received 109 CEO surveys (response rate: 49%), 153 HR manager surveys (response rate: 69%), and 459 employee surveys (response rate: 69%). After removing observations with missing values, the final dataset consisted of 109 organizational level data (109 CEOs, 109 HR managers, and 324 employees). The organizations came from a diversity of industries, including manufacture of transport equipment (20%), wholesale (18%), manufacture of electrical equipment (13%), manufacture of metal products (12%), manufacture of daily necessity (11%), manufacture of other products (6%), information technology (5%), manufacture of chemical products (5%), professional and scientific activities (4%), construction (3%), water supply (2%), and transportation (1%).

In the final CEO sample, 95 percent were male. While the number of male CEOs in our sample is very high, this well-represents the gender composition of CEOs in South Korea. According to Park (2016), in top management teams in South Korea, 91.6% were male in public organizations and 98% were male in private organizations. In terms of educational level, 24 percent of CEOs had a high school diploma, 61 percent had a (2 year or 4 year) college degree, and 15 percent had a master’s or doctoral degree. 62 percent of CEOs were over 50 years old, and 38 percent were in their 40s. In the employee sample, 63 percent were male. 30 percent had a high school diploma, 67 percent had a (2 year or 4 year) college degree, and 3 percent had a
master’s or doctoral degree. 18 percent of the employees were in their 20s, 44 percent were in their 30s, 28 percent were in their 40s and 10 percent were over 50 years old.

Measures

We followed the translation and back-translation procedures recommended by Brislin (1980). First, one of the authors who was bilingual in English and Korean, translated the original English scales into Korean. Each translated version was back-translated into English by a research assistant who was also bilingual. The back-translated versions were then compared against the original English scales and any discrepancies resolved.

Except where otherwise noted respondents were asked to express their views on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).

Organizational performance (Archival data source: Time 1 and Time 2). We conceptualized organizational performance as workforce productivity, involving profit per employee, because it is a key organizational operational outcome (Jiang et al., 2012). Jiang et al. (2012) noted that workforce productivity is a proximal outcome organization-level HR variables whereas firm growth is a distal outcome. Because workforce productivity provides a more direct indication of financial outcomes OPOS, we used this measure for the current study.

Consistent with past research, we measured workforce productivity as operating profits divided by total number of employees (Bhattacharya, Gibson, & Doty, 2005). Both at the time of the survey and one year later, we collected financial performance data (i.e., balance sheets and income statements) for our sampling organizations from Korea Enterprise Data. Korea Enterprise Data is a leading credit-rating agency in South Korea, specializing in small-to-medium organizations. It possesses the largest financial database on Korean small-to-medium
organizations. As the database is highly accurate, it is used to evaluate organizations’ credit.\textsuperscript{1} By controlling for past organizational performance (Time 1), we were able to obtain evidence regarding the directional ordering for the POS-organizational performance relationship.

**CEO relational leadership (CEO and HR Manager survey: Time 1).** To measure CEO’s relational leadership, we used the 3-item relational leadership scale from Carmeli et al. (2009). The scale has been shown to have high reliability and construct validity (e.g., Carmeli et al., 2009; Carmeli et al., 2011). Sample items include “I encourage collaboration among employees,” and “I cultivate a trustful work environment.” Consistent with past research, inter-item reliability was high ($\alpha = .82$) and the items formed one factor with its factor loadings ranged from .81 to .91 according to the exploratory factor analysis. Confirmatory factor analysis (CFA) that we performed in the later section produced consistent results.

To obtain an alternative assessment of the CEO’s relational leadership (Wang, Tsui, & Xin, 2011), we asked each HR manager to evaluate the CEO using the same scale ($\alpha = .92$). The CEOs’ leadership scores rated by managers were moderately related to the self-rated leadership scores, consistent with the leadership literature (e.g., Fleenor, Smither, Atwater, Braddy, & Sturm, 2010) ($r = .30, p < .01$). We tested our hypotheses using CEO-rated leadership scores and replicated the findings using HR manager-rated leadership scores.

**Organizational-level perceived organizational support (Employee survey: Time 1).** To measure OPOS, we used the survey of perceived organizational support (SPOS) (Eisenberger et al., 1986). Specifically, employees were asked to assess the 6 items of SPOS (Items 1, 4, 9, 20, 23, and 27) from Shanock and Eisenberger (2006). Considerable evidence exists for the

\textsuperscript{1} More information on Korea Enterprise Data can be found on the following website (http://www.kedkorea.com/en/ENINT01R0.do).
reliability and validity of the scale (Kurtessis et al., 2017). Sample items include “the organization really cares about my well-being,” and “the organization takes pride in my accomplishments at work.” Internal reliability was .90. As the unit of analysis is organization, we aggregated employee’s ratings on POS and created organizational level POS. We calculated the aggregation statistics such as intraclass correlations (ICCs) and $r_{wg}$. ICC(1) was .54 and ICC(2) was .78. $r_{wg}$ was .96. These statistics justify the aggregation of POS (LeBreton & Senter, 2008).

While it was ideal to collect and use all employees’ POS in a firm to create organizational level POS, as in many other studies there were financial and time restrictions on our data collection. We instead used three employees’ POS scores for a firm. To reduce potential concerns on sample representativeness, we made use of the random selection method. Providing each member with an equal probability of being selected, random selection method does not allow systematic factors or biases to operate (Kerlinger, 1964). Thus, it considerably increases the probability of obtaining a sample with a mean similar to the population mean (Kerlinger, 1964). As Kerlinger (1964, p. 53) stated, “with random samples we can say or assume they are representative” of the population.

Despite the benefits of random selection, Kerlinger (1964) also acknowledged that such sampling was probabilistic and related to the proportion of the population sampled and the sample size. Given the average organizational size (21.6 employees) in our sample, three employees account for about 14 percent of total population in an organization. This proportion is similar to or higher than the numbers in past studies (e.g., Chang, Jia, Takeuchi, & Cai, 2014; Klein, Conn, & Sorra, 2001; Takeuchi, Chen, & Lepak, 2009). For example, Takeuchi et al. (2009) used on average 6.9 employees’ data per organization while the average organizational
size was 385 employees (about two percent of population). Besides the proportion of sampling, our study is also consistent with past research (e.g., Chang, 2015; Salanova, Agut, & Peiro, 2005), which used three employees’ data per organization given the balance between statistical power and data collection costs. While small sample size per organization may increase measurement error at the aggregate level (Kerlinger, 1964), the aggregation statistics of POS (e.g., rwg = .96) indicate that within organization there was high agreement on POS, suggesting high accuracy of the measurement. Therefore, we conclude that the random selection method that we used does “give us dependable representative samples” (Kerlinger, 1964, p. 63).

**High performance work systems (HR Manager survey: Time 1).** HR managers in each organization were asked to rate a total of 13 HPWS items. Following past studies (e.g., Shaw et al., 2013), we standardized and averaged all the 13 items. Cronbach’s alpha was .76. We adapted the 9-item HPWS scale from Wright, Gardner, Moynihan, and Allen (2005) to measure HPWS. The HPWS scale covers staffing, training, pay for performance, employee participation, and performance evaluation. Example items include “pay raises for employees in this company are based on job performance,” and “employees in this company are involved in formal participation processes such as quality improvement groups, problem-solving groups, roundtable discussions, or suggestion systems.”

We added two items that Wright et al. (2005) intended to include in their scale but could not due to the constraint imposed by the sampling company. The two items were “our company has a gain-sharing program where employees share financially in the gain as their performance improves” and “our company has a profit-sharing program where employees share financially in the company profit as the company profit increases.” To more broadly assess the organizations’ HR architecture, we also added two items about job autonomy and the communication system,
which are included in many HPWS scales (e.g., Shaw et al., 2013). The two added items were “employees have job autonomy in managing their work” and “our company has communication systems through which it can share organizational information with employees” from Shaw et al. (2013).

In our sample of small-to-medium sized firms, there was significant variance in HPWS, allowing us to examine the main effect of HPWS and its moderating influence. Of 13 practices, 49 percent of firms utilized more than 6 practices (about half of the system). About 8 percent of firms implemented more than 10 HR practices. This is consistent with the strategic HRM literature (e.g., Messersmith & Guthrie, 2010; Jiang, Chuang, & Chiao, 2015). For example, Messersmith and Guthrie (2010) showed that in a sample of small emergent organizations (median of organizational size = 25), HR practices composing HPWS were frequently used: training program (51 percent), performance feedback (80 percent), and employee involvement program (42 percent). They also showed that HPWS significantly predicted organizational performance in the sample.

**Industry resource scarcity (Archival data source: Time 1).** To measure industry resource scarcity, we used the Human Capital Corporate Panel database, which has previously been used in the strategic HRM literature (e.g., Shaw et al., 2013). The government-funded four-wave database includes 1,894 organizations from various industries with more than 100 employees. We used the most widely used method of calculating industry resource scarcity (e.g., Datta et al., 2005; Greckhamer, Misangyi, Elms, & Lacey, 2008; Keats & Hitt, 1988; McNamara, Halebian, & Dykes, 2008; Misangyi et al., 2006). We first calculated the logarithm for total sales for each organization. We then averaged the log values for each industry for each wave. We used the industry average value as dependent variable and the year variable as
independent variable, and ran regression analysis. We obtained regression slope coefficients from the analysis results, and performed the antilogarithm for the regression betas. Following past research (e.g., Greckhamer et al., 2008), we then reverse-coded and standardized them to create the measure of resource scarcity for each industry.

**Control variables (CEO and employee surveys: Time 1).** We controlled for several variables which are theoretically relevant to our proposed model. We included CEOs’ age, gender, and educational level as control variables because such demographic characteristics are related to CEO’s relational leadership and to organizational performance (e.g., Carmeli et al., 2009). We also controlled for organizational size because it is related to investments on HR practices as well as organizational performance (e.g., Kim et al., 2016; Shaw et al., 2013). Following past studies, organizational size was measured as the log of the number of employees (Qian, Cao, & Takeuchi, 2013). We also controlled for employees’ age, gender and educational level because they have been shown to be related to their perceptions of organizational support as well as their job performance (e.g., Rhoades & Eisenberger, 2002). Therefore, we controlled for these variables. Lastly, as mentioned above, we controlled for past organizational performance.

**Results**

Table 1 presents descriptive statistics and correlations among the study variables.

**Distinctiveness of the Constructs**

Prior to the test of hypotheses, we first assessed the distinctiveness of the three latent variables: relational leadership, HPWS, and OPOS. We performed a series of CFAs and chi-square difference tests for comparing the fit of three nested models (Bentler & Bonett, 1980).
The models ranged from a single factor model combining all the constructs to the hypothesized three-factor model treating all the factors as distinct from one another. For the two-factor model, we combined relational leadership with OPOS because leadership is regarded as a key antecedent for OPOS in the literature (Kurtessis et al., 2017). CFA results are presented in Table 2. As shown in Table 2, the most differentiated three-factor model had the best fit and significantly better fit than alternative models: comparative fit index (CFI) = .940; Tucker-Lewis index (TLI) = .932; root mean square error of approximation (RMSEA) = .055. The alternative models showed less statistically-significant fit, and the fit indices for these models were poor. Therefore, we treated all the factors different from each other in the following analyses.

**Test of Hypotheses**

Our data is multilevel in nature because organizations are nested within each industry (Hough, 2006). In the multilevel setting, ordinary least squared regression may produce biased estimations (Raudenbush & Bryk, 2002). Following past research, we utilized hierarchical linear modeling (HLM) to properly address the nested structure (Raudenbush & Bryk, 2002). Following Raudenbush and Bryk (2002)’s recommendation, we calculated pseudo-$R^2$ for each model.

Hypotheses 1 and 2 state that (H1) HPWS and (H2) CEO relational leadership are positively related to OPOS. To test the Hypotheses, we ran HLM with HPWS and CEO relational leadership along with control variables. The results are presented in Models 2 - 4 (Table 3). The results show that both HPWS ($\gamma = .73, SE = .15, p < .01$) and CEO relational leadership ($\gamma = .42, SE = .09, p < .01$) were significantly and positively associated with OPOS. Hypotheses 1 and 2 were supported.
Hypothesis 3 predicts that OPOS is positively associated with organizational performance. To test the effect of OPOS on organizational performance, we used OPOS as an independent variable and organizational performance as dependent variable. As shown in Table 4, the effect of OPOS was not significantly related to organizational performance ($\gamma = 8.42, SE = 5.61, ns$). OPOS did not show a statistically significant overall relationship with organizational performance, rejecting Hypothesis 3.

Hypothesis 4 proposes that HPWS moderates the OPOS-organizational performance relationship such that the relationship of OPOS with organizational performance is enhanced by HPWS. We added the interaction term between OPOS and HPWS along with the moderators in Models 7 and 9 to test Hypothesis 4. As shown in Table 4, the OPOS-HPWS moderation effect was significant and positive in predicting organizational performance above and beyond past organizational performance and other control variables ($\gamma = 19.50, SE = 8.41, p < .05$). We plotted the moderating effect of HPWS in Figure 2 using one standard deviation above and below the mean of the variables. Figure 2 shows that the effect of OPOS on organizational performance was stronger for high HPWS than low HPWS. We performed simple slopes tests to further examine the interaction effects. The results showed that the effect of OPOS on organizational performance was statistically significant for high HPWS ($\gamma = 17.94, SE = 7.36, p < .05$) but not for low HPWS ($\gamma = –1.94, SE = 6.53, ns$). Hypothesis 4 was supported.

Hypothesis 5 predicts that industry resource scarcity moderates the OPOS-organizational performance relationship such that the effect of OPOS on organizational performance is stronger when resource scarcity is high than when it is low. We added the interaction effect of OPOS with industry resource scarcity in Models 8 and 9. Table 4 shows that OPOS is significantly and negatively moderated with resource scarcity in predicting organizational performance ($\gamma = 12.40$,
Figure 3 suggests that the effect of OPOS on organizational performance was stronger for high resource scarcity than for low resource scarcity. Simple slopes tests confirmed the interpretations (simple slope for high resource scarcity: $\gamma = 20.40, SE = 7.17, p < .01$; simple slope for low resource scarcity: $\gamma = -4.40, SE = 8.46, ns$). Thus, Hypothesis 5 was supported.

Hypothesis 6 states that the conditional indirect effects of HPWS on organizational performance via OPOS is stronger (a) when HPWS is high than when HPWS is low and (b) when resource scarcity is high than when it is low. To test the conditional indirect effect, we used the PROCESS SAS macro (Hayes, 2012). This bootstrapping method is considered to be a better approach than the traditional Sobel test because unlike Sobel test it does not have any assumption on the distribution of indirect effects (Preacher & Hayes, 2008). The bootstrapping results are presented in Table 5. Consistent with our expectations, the conditional indirect effect of HPWS on organizational performance via enhanced OPOS was significant when HPWS was high and industry resource scarcity was high. Hypothesis 6 was supported.

Hypothesis 7 proposes that the conditional indirect effect of CEO relational leadership on organizational performance via OPOS is high (a) at greater HPWS and (b) at higher industry resource scarcity. Following the same procedure used to test Hypothesis 6, we tested Hypothesis 7. As shown in the bottom panel of Table 5, the conditional indirect effect of CEO relational leadership on organizational performance via OPOS was significant at high level of HPWS and at high level of resource scarcity. Hypothesis 7 was supported.

In the above analyses, we used relational leadership ratings by CEOs. We reran the entire analyses using leadership ratings by HR managers. Results are presented in Table 6. Consistent with the findings above, both HPWS ($\gamma = .30, SE = .13, p < .05$) and CEO relational
leadership ($\gamma = .40, SE = .05, p < .01$) were positively associated with OPOS. While the main effect of OPOS on organizational financial performance was not significant ($\gamma = 5.51, SE = 6.47, ns$), OPOS’s interaction effects with HPWS ($\gamma = 18.51, SE = 8.40, p < .05$) and industry resource scarcity ($\gamma = 11.34, SE = 5.45, p < .05$) were significant in predicting organizational performance. Thus, similar results were obtained whether relational leadership was self-rated by the CEO or by the HR manager.

**Discussion**

In contrast to prior research which demonstrated differences among employees in the relationship between POS and performance (Kurtessis et al., 2017), the present research reports differences across organizations in the relationship between OPOS and organizational performance. Our results indicate that although OPOS showed no overall relationship with organizational performance, OPOS was strongly related to organizational performance when high performance work systems (HPWS) or industry resource scarcity were in place. In contrast, we found no relationship between OPOS and organizational performance when HPWS or resource scarcity were low. Further, OPOS mediated the relationships of HPWS and CEO’s relational leadership with organizational performance, as moderated by HPWS and industry scarcity. Our research begins to address the lack of theory and empirical research on the relationship between the aggregate influence of perceived support and favorable organizational outcomes. Although many studies report a positive relationship between POS and employee performance, leading to the inference that organization-wide POS may influence organizational performance (e.g., Cullen et al., 2014; Eisenberger & Stinglhamber, 2011; Gavino et al., 2012; Yu & Frenzel, 2013), the present research is the first to our knowledge to directly address this
issue, identifying organization-wide and industry-related contexts that may markedly influence the relationship between OPOS and organizational performance.

Organizational support theory emphasizes the favorable motivational and emotional consequences of employees’ perceived favorable valuation by the organization, including the beneficial outcomes of human resource practices for POS for the individual employees (Kurtessis et al., 2017). We extend these findings to the benefits for organizational performance of the organization’s employees perceiving as a group that the organization values their contributions and cares about their well-being (OPOS). However, the ability-motivation-opportunity (AMO) framework of HRM (Jiang et al., 2012; Reinholt et al., 2011) suggests that systematic HR practices that provide skills and opportunities to put skills to good use may moderate the effects of OPOS on organizational performance. Our result that HPWS moderated the relationship between OPOS and organizational performance is consistent with meta-analytic findings that the relationship between HPWS and firm performance was substantially larger than the relationship between individual HR practices and firm performance (Combs et al., 2006). HPWS can equip employees with the necessary skills and abilities to perform their jobs. HPWS also provide employees with opportunities to utilize their KSAs and contribute to the organization’s success (Jiang et al., 2012). Thus, based on the AMO framework, HPWS should strengthen the OPOS-employee performance relationship. OPOS, together with system-wide features of HPWS such as selective staffing and implementation of employee suggestions, helps transform employees’ high efforts into accomplishment and therefore organizational performance. Accordingly, we found that HPWS moderated the relationship between OPOS and organizational performance.
Besides the moderating role of HPWS for the OPOS-organizational performance relationship, HPWS were also found to be an antecedent of OPOS. Viewed as a social exchange between employees and the organization, HPWS such as career training and employee participation in decision making signal employees that the organization cares about them and values their contributions (e.g., Liao et al., 2009; Takeuchi et al., 2007). Based on the reciprocity norm, the resulting OPOS should create a felt obligation to return the favorable treatment. Such reciprocity and an increased identification with, and affective commitment to the organization (Kurtessis et al., 2017) should increase organizational performance.

The dual roles of HPWS as a moderator and an antecedent are consistent with past research (e.g., Liao et al., 2009; Whitener, 2001). For example, Liao et al. (2009) showed that HPWS increased employees’ POS at the individual level and Whitener (2001) showed that two major elements of HPWS, performance appraisal and reward HR practices, strengthened the relationship between POS and employees’ affective commitment to the organization.

HPWS and industry resource performance served as moderators in the terminal link in the relationship of HPWS and CEO relational relationship through OPOS to organizational performance (figure 1). These conditional indirect effects (e.g., Harold & Holtz, 2015; Hart et al., 2017) indicate that the relationships of these antecedents through OPOS as stronger when HPWS are high and industry resource scarcity is low. Specifically, our conditional indirect effect findings suggest that when HPWS are high, employees’ OPOS is high and the employees can effectively contribute to organizational performance because the high HPWS equip them with necessary KSAs and provide them with opportunities. On the contrary, when HPWS are low, employees’ OPOS is low but different from simple mediation effect, the low OPOS did not result in lower organizational performance. It may be that even without or at low HPWS, employees
with low OPOS perform their job marginally effectively because poor performance can lead to various adverse consequences including discipline and termination. The findings provide a clearer understanding of how and when the effect of HPWS on OPOS carries over to organizational performance.

We additionally found that the relationship between OPOS and organizational performance was strongly moderated by industry resource scarcity. OPOS was associated with improved organizational performance only in a high resource-scarcity industry environment where organizations are generally less able to supply employees with necessary resources, equipment, and technologies. This finding suggests that employees view favorable treatment, including OPOS in such an environment as requiring increased sacrifice by the organization. Based on the reciprocity norm, such favorable treatment would obligate employees to engage in increased efforts to help the organization achieve its objectives and goals (Eisenberger et al., 1986; Gouldner, 1960). Also, when industry scarcity is high and the organization’s well-being therefore appears under threat, employees’ high affective commitment toward and high organizational identification with the organization, engendered by OPOS (Eisenberger & Stinglhamber, 2011), should increase their desire to help.

We also found that the CEO’s relational leadership was associated with OPOS and thus with organizational performance as moderated by HPWS and industry resource scarcity. This finding is consistent with strategic management theory according to which higher-level managers exert an important influence on strategy formulation and organizational performance (Hambrick & Mason, 1984; Waldman, Ramirez, House, & Puranam 2001). Relational CEOs’ espousal of support of and strong cooperation among employees may influence organization-wide policies and practices that promote OPOS (Levinson, 1965; Eisenberger et al., 1986). Further, the
increased communication between management and lower-level employees, promoted by relational leadership, should enhance employees’ perception that the CEO and other organization representatives value their opinions. This combination of factors may influence OPOS and therefore organizational performance.

However, the relationship between relational leadership and increased performance, as mediated by OPOS, was conditional on industry resource scarcity and HPWS. Waldman et al. (2001) argued that CEO leadership is especially important when the organizations are in uncertain and risky situations. They found that CEO charismatic leadership was positively related to firm performance when perceived industry uncertainty was high but not low. The present findings extend this research by showing the mediating role of OPOS in the relationship between CEO relational leadership and firm performance as well as the additional moderating role of HPWS.

**Future Research**

We found that relational leadership was related to organizational performance as mediated by OPOS for employees in organizations with high HPWS and industry scarcity. We need to know more about how relational leadership by top management influences OPOS. We have argued that by serving as caring role models and by establishing policies and procedures that promote open communication and concern with subordinates, relational CEOs foster OPOS. Part of this influence may accrue by cascading effects of the CEO’s favorable treatment of senior managers. Shanock and Eisenberger (2006) found that POS experienced by supervisors was associated with perceived supportive supervision, as reported by subordinates, and resultant greater in-role and extra-role performance. The CEO may play a key role in the downward promotion of OPOS from his or her position of high influence and authority.
Although we focused in the present study on relational leadership, charismatic leadership is also related to POS (Kurtessis et al., 2017). As previously discussed, charismatic leadership was found more strongly associated with organizational performance when industry uncertainty was high (Waldman et al., 2001). A combination of CEO relational and charismatic leadership might be especially effective in promoting OPOS and therefore organizational performance.

Other organization-wide factors besides leadership are associated with OPOS and, therefore, could contribute to organizational performance. Pervasive organizational cultures and climates that convey positive valuation and caring of employees would be expected to have a strong influence on OPOS and therefore organizational performance. Mauseth (2008) found that clan culture, which emphases commonality of goals and values, was positively related to POS. Similarly, Wang and Hsieh (2013) found that a caring climate, which emphasizes the well-being of others, was positively related to POS. Cultures and Climates may provide a common experience of the organization as a source of low or high positive valuation and thus contribute to OPOS. Considering informal networks within organizations, POS has been found to increase with the number of relationships employees have that provide emotional support or useful information (Hayton, Carnabuci, & Eisenberger, 2012; Zagenczyk, Scott, Gibney, Murrell, & Thatcher, 2010). Such networks may operate by identifying the organization as a strong source of caring and positive valuation.

The contribution of OPOS to organizational performance may also depend on organizational norms concerning appropriate performance. For example, when management encourages employees to carry out standard job performance, rather than to be creative and to follow up with innovative products or services, OPOS may be channeled into standard job activities rather than into innovation. This may be entirely acceptable to organizations whose
business strategy depends on frontline employees’ persistence rather than creativity. But such a norm promoting standard job performance would not be expected to result in much of a boost for innovation from OPOS. Organizations with norms promoting research and development may channel OPOS into greater creativity.

In studying small to mid-sized organizations we controlled for organizational size. It is possible that CEO relational leadership may have a greater influence on organizational performance, as mediated by OPOS, in smaller firms. Large firms often contain layered bureaucratic structures that may lessen the impact of CEO relational leadership throughout the organization. Further, smaller firms often lack the financial reserves that allow them to forgo layoffs and cutbacks in pay when industry conditions turn unfavorable (high scarcity). Thus, it will be important to examine how organizational size may alter the moderating influence of industry scarcity on the relationship between OPOS and organizational performance.

Methodological Strengths and Limitations

Possible problems of common method variance were reduced by obtaining data from four different sources: CEOs, HR managers, employees, and financial reports. Moreover, assessment of CEO relational leadership used two different sources of data: the CEO himself or herself and the HR director as a systematic replication. Also, by obtaining organizational performance measures across time we are able to provide evidence regarding the direction of the relationship between OPOS and organizational performance. However, CEO leadership, HPWS, and OPOS were assessed simultaneously and thus we have no evidence concerning their causal ordering. Our view that HPWS and CEO relational leadership are antecedents of OPOS is supported by theory (e.g., Kurtessis et al., 2017) as well as prior empirical research. For example, Eisenberger, Shoss, Karagonlar, Gonzalez-Morales, Wickham, and Buffardi (2014) found in a
As in other studies, the present study has limitations. First, we studied small-to-medium sized firms in South Korea. South Korea is a highly industrialized nation representative of the rapid economic development that has been occurring in parts of China and elsewhere in the developing world. However, because this collectivistic nation is more representative of the East than the West, the results should be replicated in Western nations. In addition, because our sampling firms were small-to-medium sized firms introduced by a commercial bank in South Korea, their replicability with larger firms and other cultures needs to be assessed.

Second, for the moderating influence of HPWS, we argued that when organizations implement HPWS, employees’ KSAs would improve (Jiang et al., 2012). Consistent with many studies in the strategic HRM literature (e.g., Liao & Chuang, 2004; Patel, Messersmith, & Lepak, 2013), we assumed the positive relationship between HPWS and employees’ KSAs. Although scholars have shown that HPWS indeed improve employees’ KSAs (Liao et al., 2009; Takeuchi et al., 2007), building upon our study future research might examine how employees’ KSAs moderates the OPOS-organizational performance relationship.

Third, our measurement for the substantive variables could be improved. First, as we mentioned earlier, we used three employees’ POS scores to create OPOS. While the random selection method and relatively small firm size reduce the potential concern for sample representativeness, future research might replicate our research model with more reliably measured OPOS. Second, while we used the established scale for relational leadership in our study, its measurement items were very generally phrased. We encourage scholars to advance the measure of relational leadership to consider its effect on OPOS. Third, while we
conceptualized organizational performance as workforce productivity on the basis of theoretical relevance, this measure may not be the most important for all industries (e.g. non-profits). Future research might examine the effect of OPOS on other financial performance metrics such as firm growth.

**Practical Implications**

Previous research has established many benefits of POS for employees at the individual level that might be expected to have organization-wide implications including increased psychological well-being, lessened withdrawal behaviors, and greater performance (Baran et al., 2012; Eisenberger & Stinglhamber, 2011; Kurtessis et al., 2017; Rhoades & Eisenberger, 2002). However, our results suggest that the benefits of OPOS for organizational performance occur mainly when HPWS are favorable or industry resources are scarce. Based on our findings, when organizations intensively utilized HPWS, a one unit increase by the average employee on the POS scale was associated with an 11.0 percent increase in organizational performance. Further, under high resource-scarce industry a one unit increase in OPOS was related to a 12.5 percent increase in organizational performance. The magnitude of these organizational performance relationships may be compared with an average change of xx percent change in organizational performance year over year and thus represent a notable contribution.

HPWS played an important role in enhancing OPOS and moderating the relationship between OPOS and organizational performance. Previous research showed that HPWS was related to POS (Liao et al. 2009). The present research indicates the practical value of HPWS as an organization-wide antecedent of OPOS and enhancer of its outcomes on organizational performance. Systematic HR practices involved in HPWS may involve considerable planning and follow-up by senior management to ensure their effectiveness. Yet, the present findings
indicate that by enhancing OPOS, HPWS can contribute substantially to organizational performance.

CEOs may enhance organizational performance through relational leadership, involving open communication, cooperation, and trust, and by fostering the development of OPOS. However, OPOS does not appear sufficient to enhance organizational performance without the skills and opportunities provided by high HPWS. The CEO’s promotion of organizational performance through relational leadership was most effective when industry resources were scarce. It was then that employees appeared to especially value OPOS, we argued, because support came when it was difficult to provide. These findings suggest that it is especially important for supervisors to display and promote caring leadership during challenging times for the organization.

We found that both the CEO’s own estimation of their relational leadership and the evaluation of the CEO’s relational leadership by the HR manager were related to OPOS. Thus, CEOs have some awareness of their supportive leadership, which suggests a capacity to increase effective relational leadership when CEOs are motivated to do so. One way in which CEOs may increase such leadership, leading to greater OPOS, involves more open communications to lower-level employees of future plans and encouragement of these employees to provide ideas and suggestions for organizational change. Neves and Eisenberger (2012) found in a cross-lagged study that such two-way communication by upper management was positively related to POS and the same may hold across organizations, involving OPOS.

Upper management also influences organization-wide norms for support of lower level employees. Supervisors enhance POS by making job-related decisions consistently across employees (Moorman, Blakely, & Niehoff, 1998) and treating employees supportively (Shanock
& Eisenberger, 2006). Norms for such supervisor behavior can be fostered by upper management. A recent study with front-line supervisors found that two sessions of training in supportive supervision strategies increased their supportive supervision and reduced perceived abuse reported by subordinates, as compared to a control group, 9 months after training (Gonzalez-Morales, Kernan, Becker, & Eisenberger, in press). Organization-wide norms for supportive supervision may contribute to OPOS and, thus, organizational performance

**Conclusion**

With a sample of 109 small-to-medium sized South Korean firms, we found employees’ OPOS mediated the relationships of HPWS and CEO’s relational leadership with organizational performance, as moderated by HPWS and industry resource scarcity. Our findings extend the many findings reporting POS relationships with performance of employees to the relationship between organization-wide perceptions of organizational support and organizational performance. The positive relationships of HPWS and CEO’s relational leadership with organizational performance, as mediated by OPOS, suggests practical ways organizations can enhance their performance. However, the relationship of perceived support at the organizational level with organizational level is depends on HPWS and the scarcity of the industry in which the organization resides.
References


Table 1
Descriptive Statistics and Correlations

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<tbody>
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<td>1. CEO age</td>
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<td>2. CEO gender</td>
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<td>3. CEO education</td>
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<td>-.09</td>
<td>-.03</td>
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<td>4. Employees’ average age</td>
<td>2.31</td>
<td>.60</td>
<td>.13</td>
<td>.08</td>
<td>.12</td>
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<td>5. Employees’ average gender</td>
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<td>-.11</td>
<td>-.03</td>
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<td>-.36**</td>
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<td>6. Employees’ average education</td>
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<td>.20*</td>
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<td>7. Organizational size</td>
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<td>.06</td>
<td>.08</td>
<td>-.07</td>
<td>-.07</td>
<td>.11</td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.82)</td>
</tr>
<tr>
<td>9. HPWS</td>
<td>.00</td>
<td>1.00</td>
<td>-.12</td>
<td>.01</td>
<td>.05</td>
<td>-.16</td>
<td>.15</td>
<td>.13</td>
<td>.28**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.76)</td>
</tr>
<tr>
<td>10. Resource scarcity</td>
<td>.00</td>
<td>1.00</td>
<td>.08</td>
<td>-.05</td>
<td>-.05</td>
<td>.09</td>
<td>.04</td>
<td>-.14</td>
<td>.23*</td>
<td>-.17</td>
<td>-.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. OPOS</td>
<td>5.09</td>
<td>.91</td>
<td>.04</td>
<td>.09</td>
<td>.02</td>
<td>.04</td>
<td>-.26**</td>
<td>.06</td>
<td>-.09</td>
<td>.42**</td>
<td>.41**</td>
<td>-.03</td>
<td></td>
<td>(.90)</td>
</tr>
<tr>
<td>12. Past workforce productivity</td>
<td>27.26</td>
<td>34.92</td>
<td>.01</td>
<td>.04</td>
<td>-.02</td>
<td>.04</td>
<td>.21*</td>
<td>-.02</td>
<td>-.24*</td>
<td>.15</td>
<td>.11</td>
<td>-.03</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>13. Workforce productivity</td>
<td>23.93</td>
<td>52.14</td>
<td>-.02</td>
<td>-.06</td>
<td>-.06</td>
<td>-.03</td>
<td>.15</td>
<td>-.02</td>
<td>-.08</td>
<td>.10</td>
<td>.13</td>
<td>.11</td>
<td></td>
<td>.58**</td>
</tr>
</tbody>
</table>

Note: N = 109. OPOS = organizational-level perceived organizational support; HPWS = high performance work systems. Reliability coefficients are reported in parentheses on the diagonal. 
a. * p < .05, ** p < .01.
Table 2
Confirmatory Factor Analyses Results for Measurement Model.

<table>
<thead>
<tr>
<th>Model</th>
<th>df</th>
<th>$\chi^2$</th>
<th>$\chi^2_{\text{diff}}$</th>
<th>RMSEA</th>
<th>CFI</th>
<th>TLI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-factor</td>
<td>204</td>
<td>271.01</td>
<td></td>
<td>.055</td>
<td>.940</td>
<td>.932</td>
</tr>
<tr>
<td>Two-factor</td>
<td>206</td>
<td>368.64</td>
<td>97.63**</td>
<td>.085</td>
<td>.854</td>
<td>.837</td>
</tr>
<tr>
<td>One-factor</td>
<td>207</td>
<td>456.12</td>
<td>87.49**</td>
<td>.106</td>
<td>.777</td>
<td>.751</td>
</tr>
</tbody>
</table>

Note. $N = 109$. $df$ = degrees of freedom; RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index. Two-factor = CEO relational leadership and OPOS are combined.
a. ** $p < .01$
Table 3
Hierarchical Linear Modeling Results – Main Effects of HPWS and CEO Relational Leadership on OPOS

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Model 1 γ (s.e.)</th>
<th>Model 2 γ (s.e.)</th>
<th>Model 3 γ (s.e.)</th>
<th>Model 4 γ (s.e.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>−.02 (.08)</td>
<td>−.02 (.07)</td>
<td>−.01 (.07)</td>
<td>−.02 (.07)</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO age</td>
<td>.07 (.17)</td>
<td>.17 (.16)</td>
<td>.04 (.15)</td>
<td>.13 (.15)</td>
</tr>
<tr>
<td>CEO gender</td>
<td>.34 (.35)</td>
<td>.36 (.32)</td>
<td>.26 (.32)</td>
<td>.30 (.30)</td>
</tr>
<tr>
<td>CEO education</td>
<td>.12 (.14)</td>
<td>.12 (.13)</td>
<td>.07 (.13)</td>
<td>.08 (.12)</td>
</tr>
<tr>
<td>Employees’ average age</td>
<td>−.18 (.15)</td>
<td>−.16 (.14)</td>
<td>−.10 (.14)</td>
<td>−.10 (.13)</td>
</tr>
<tr>
<td>Employees’ average gender</td>
<td>−.95 (.29)**</td>
<td>−.64 (.27)*</td>
<td>−.74 (.27)**</td>
<td>−.52 (.25)*</td>
</tr>
<tr>
<td>Employees’ average education</td>
<td>.19 (.24)</td>
<td>.04 (.22)</td>
<td>.11 (.22)</td>
<td>.00 (.21)</td>
</tr>
<tr>
<td>Organizational size</td>
<td>−.19 (.24)</td>
<td>−.41 (.22)*</td>
<td>−.37 (.22)</td>
<td>−.52 (.21)*</td>
</tr>
<tr>
<td>Past organizational performance</td>
<td>.00 (.00)</td>
<td>.00 (.00)</td>
<td>−.00 (.00)</td>
<td>−.00 (.00)</td>
</tr>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPWS</td>
<td>.73 (.15)**</td>
<td>.61 (.15)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO relational leadership</td>
<td>.42 (.09)**</td>
<td>.34 (.09)**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 109. OPOS = organizational-level perceived organizational support; HPWS = high performance work systems.

a. †p < 0.10, *p < 0.05, **p < 0.01
Table 4
Hierarchical Linear Modeling Results – Main Effect of OPOS and Moderating Effects of HPWS and Resource Scarcity on Organizational Performance (Workforce Productivity)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
<th>Model 8</th>
<th>Model 9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\gamma$ (s.e.)</td>
<td>$\gamma$ (s.e.)</td>
<td>$\gamma$ (s.e.)</td>
<td>$\gamma$ (s.e.)</td>
<td>$\gamma$ (s.e.)</td>
</tr>
<tr>
<td>Intercept</td>
<td>24.83 (4.16)**</td>
<td>24.91 (4.05)**</td>
<td>21.30 (4.28)**</td>
<td>25.35 (3.98)**</td>
<td>21.69 (4.19)**</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO gender</td>
<td>–16.42 (17.88)</td>
<td>–17.81 (17.56)</td>
<td>–18.21 (17.18)</td>
<td>–25.93 (17.64)</td>
<td>–26.52 (17.22)</td>
</tr>
<tr>
<td>CEO education</td>
<td>–1.17 (7.08)</td>
<td>–2.11 (6.95)</td>
<td>–2.89 (6.80)</td>
<td>–1.08 (6.83)</td>
<td>–1.86 (6.67)</td>
</tr>
<tr>
<td>Employees’ average age</td>
<td>–6.78 (7.70)</td>
<td>–5.39 (7.59)</td>
<td>–3.30 (7.48)</td>
<td>–4.56 (7.45)</td>
<td>–2.41 (7.33)</td>
</tr>
<tr>
<td>Employees’ average gender</td>
<td>–5.08 (14.64)</td>
<td>4.17 (15.09)</td>
<td>10.64 (15.04)</td>
<td>.77 (14.88)</td>
<td>7.30 (14.80)</td>
</tr>
<tr>
<td>Employees’ average education</td>
<td>–.34 (12.29)</td>
<td>–2.54 (12.12)</td>
<td>–4.86 (11.90)</td>
<td>–2.20 (11.88)</td>
<td>–4.56 (11.64)</td>
</tr>
<tr>
<td>Organizational size</td>
<td>8.95 (12.12)</td>
<td>9.62 (12.53)</td>
<td>12.45 (12.32)</td>
<td>14.01 (12.46)</td>
<td>16.99 (12.23)</td>
</tr>
<tr>
<td>Past organizational performance</td>
<td>.00 (.00)**</td>
<td>.00 (.00)**</td>
<td>.00 (.00)**</td>
<td>.00 (.00)**</td>
<td>.00 (.00)**</td>
</tr>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPWS</td>
<td></td>
<td>3.73 (9.15)</td>
<td>4.10 (8.95)</td>
<td>5.31 (8.99)</td>
<td>5.72 (8.78)</td>
</tr>
<tr>
<td>CEO relational leadership</td>
<td>–.75 (5.36)</td>
<td>–1.70 (5.26)</td>
<td>–3.53 (5.41)</td>
<td>–4.57 (5.30)</td>
<td></td>
</tr>
<tr>
<td>Resource scarcity</td>
<td>5.50 (3.96)</td>
<td>5.61 (3.87)</td>
<td>5.41 (3.88)</td>
<td>5.52 (3.79)</td>
<td></td>
</tr>
<tr>
<td>OPOS</td>
<td>8.42 (5.61)</td>
<td>9.99 (5.53)†</td>
<td>6.44 (5.58)</td>
<td>8.00 (5.48)</td>
<td></td>
</tr>
<tr>
<td>OPOS × HPWS</td>
<td></td>
<td>19.11 (8.59)*</td>
<td></td>
<td></td>
<td>19.50 (8.41)*</td>
</tr>
<tr>
<td>OPOS × Resource scarcity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.13 (5.74)*</td>
</tr>
</tbody>
</table>

$\text{Pseudo R}^2$ | .34 | .37 | .40 | .40 | .43

Note. $N = 109$. OPOS = organizational-level perceived organizational support; HPWS = high performance work systems.

a. † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$
Table 5
*Bootstrapping Results – Conditional Indirect Effect of HPWS and CEO Relational Leadership on Organizational Performance (Workforce Productivity) via OPOS*

<table>
<thead>
<tr>
<th>Conditional Indirect Effect</th>
<th>Level of HPWS or Resource Scarcity</th>
<th>B</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High HPWS</td>
<td>11.95*</td>
<td>3.65</td>
<td>33.34</td>
</tr>
<tr>
<td></td>
<td>Low HPWS</td>
<td>0.15</td>
<td>–7.20</td>
<td>7.80</td>
</tr>
</tbody>
</table>

Conditional indirect effect of HPWS on organizational performance (workforce productivity) via OPOS

<table>
<thead>
<tr>
<th></th>
<th>High Resource Scarcity</th>
<th>B</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Resource Scarcity</td>
<td>8.10*</td>
<td>2.16</td>
<td>18.99</td>
</tr>
<tr>
<td></td>
<td>Low Resource Scarcity</td>
<td>–8.85</td>
<td>–34.06</td>
<td>14.11</td>
</tr>
</tbody>
</table>

Conditional indirect effect of CEO relational leadership on organizational performance (workforce productivity) via OPOS

<table>
<thead>
<tr>
<th></th>
<th>High HPWS</th>
<th>B</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High HPWS</td>
<td>8.23*</td>
<td>1.99</td>
<td>21.35</td>
</tr>
<tr>
<td></td>
<td>Low HPWS</td>
<td>0.10</td>
<td>–4.98</td>
<td>5.36</td>
</tr>
</tbody>
</table>

Note. N = 109. OPOS = organizational-level perceived organizational support; HPWS = high performance work systems; LLCI = lower limit confidence interval; ULCI = upper limit confidence interval. Confidence intervals are based on a significance level of 0.05. Number of bootstrap samples = 1,000.
a. * p < .05.
### Table 6
**Hierarchical Linear Modeling Results Using Manager-Rated CEO Relational Leadership**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>OPOS</th>
<th>Dependent Variables (Workforce Productivity)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 10 γ (s.e.)</td>
<td>Model 10 γ (s.e.)</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO age</td>
<td>–.04 (.13)</td>
<td>–7.52 (8.67)</td>
</tr>
<tr>
<td>CEO gender</td>
<td>.22 (.26)</td>
<td>–17.98 (17.51)</td>
</tr>
<tr>
<td>CEO education</td>
<td>.12 (.10)</td>
<td>–1.81 (6.93)</td>
</tr>
<tr>
<td>Employees’ average age</td>
<td>–.05 (.11)</td>
<td>–4.80 (7.56)</td>
</tr>
<tr>
<td>Employees’ average gender</td>
<td>–.36 (.22)</td>
<td>4.76 (15.05)</td>
</tr>
<tr>
<td>Employees’ average education</td>
<td>.19 (.18)</td>
<td>–1.20 (12.21)</td>
</tr>
<tr>
<td>Organizational size</td>
<td>–.22 (.18)</td>
<td>9.65 (12.25)</td>
</tr>
<tr>
<td>Past organizational performance</td>
<td>–.00 (.00)</td>
<td>.00 (.00)**</td>
</tr>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPWS</td>
<td>.30 (.13)*</td>
<td>2.21 (9.30)</td>
</tr>
<tr>
<td>CEO relational leadership</td>
<td>.40 (.05)**</td>
<td>3.40 (4.36)</td>
</tr>
<tr>
<td>Resource Scarcity</td>
<td>5.50 (3.95)</td>
<td>5.60 (3.87)</td>
</tr>
<tr>
<td>OPOS</td>
<td>5.51 (6.47)</td>
<td>6.81 (6.38)</td>
</tr>
<tr>
<td>OPOS × HPWS</td>
<td>18.54 (8.57)*</td>
<td>18.51 (8.40)*</td>
</tr>
<tr>
<td>OPOS × Resource Scarcity</td>
<td></td>
<td>11.36 (5.57)*</td>
</tr>
</tbody>
</table>

| Pseudo R²                         | .52 | .38 | .40 | .40 | .42 |

**Note.** N = 109. OPOS = organizational-level perceived organizational support; HPWS = high performance work systems.

a. † p < 0.10, * p < 0.05, ** p < 0.01
Proposed Conceptual Model: Unit-Level Model of OPOS

High Performance Work Systems → Organizational-level POS (OPOS) → Organizational Performance
CEO Relational Leadership → Organizational-level POS (OPOS)
Industry Resource Scarcity → Organizational-level POS (OPOS)

Note. All the constructs represent organizational level variables. We conceptualized organizational performance as workforce productivity. OPOS = organizational-level perceived organizational support.
Figure 2

Organizational Performance (Workforce Productivity) Regressed on OPOS and HPWS

Note. Organizational performance as a function of OPOS at low (−1 SD) and high (+1 SD) levels of HPWS. OPOS = organizational-level perceived organizational support; HPWS = high performance work systems; SD = standard deviation.
Figure 3

Organizational Performance (Workforce Productivity) Regressed on OPOS and Resource Scarcity

Note. Organizational performance as a function of OPOS at low (−1 SD) and high (+1 SD) levels of resource scarcity. OPOS = organizational-level perceived organizational support; SD = standard deviation.